



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

The work is clearly written, and the author frequently reduces his statements to a mathematical form. The book will be useful to teachers.

The Removal from the Water of Nitrogenous Matter Excreted by Marine Animals has been investigated by Mr. H. M. Vernon, at the Naples Station, by chemical, physiological, and bacteriological methods. Green seaweeds in aquaria remove the free, but increase the albuminoid, ammonia, and favorably affect the growth of sea-urchin larvæ. Neither form of ammonia is decreased by the red seaweeds, and larvæ do not thrive in the water except in direct contact with a small quantity of the weed. Sand with no vegetable matter had no purifying power, but when clogged with diatoms and algæ, it removed as high as 96 per cent of the free, and 51 per cent of the albuminoid, ammonia. Bacteria are important agents in the purifying process, especially in the removal of the free ammonia. The bacterial slime lining the aquarium pipes materially purifies the water. Purification is greatest at the maximum rate of filtration, though the number of bacteria is increased considerably by the use of the clogged sand-filter. The removal of the ammonia favors the development of the larvæ.

C. A. K.

ANTHROPOLOGY.

Physical Qualities of the Children of Prague.¹ — Dr. Matiegka, one of the foremost Czechish anthropologists, has contributed largely to the knowledge of Bohemian craniology and other subjects. The present work is a contribution to the study of school children of the capital of Bohemia. It has been preceded by studies "On the Influences which Act on the Weight and Length of the New-Born Children in Bohemia,"² "On the Period of Puberty among Bohemian Girls,"³ etc., by the same author. The work at hand is full of interesting details and comparisons, and well deserves a translation into the English language.

The children included in the examinations range from $5\frac{1}{2}$ to 14

¹ Matiegka, Jindrich. The Growth, Evolution, Physical Qualities, and the Hygienic Conditions of the Children of Prague, *Trans. Bohem. Acad. of Sci. and Art*, Ann. vi, Cl. ii, No. 17, pp. 1-78, with tables. Prague, 1898.

² *Journ. of the Bohem. Phys.* (1894), p. 245.

³ *Bull. of the Bohem. Assoc. of Sci.* (1897), XV.

years of age. There were ascertained with each child the date of birth, state of nutrition and of musculature, height, weight, circumference of the head, circumference of the thorax at inspiration and at expiration, color of eyes and hair, condition of teeth, principal qualities of sight and hearing, morals, abilities, and existence of diseases past and present. The actual examinations were conducted principally by the teachers of the children, the whole work being authorized and supported by the municipality.

Among the main results of the investigations the following are important:

Births. — The maximum rate of conceptions occurs in May and a part of June.¹ In the months in which the greatest numbers of children are born there is also observed the greatest average weight of children. The vitality of the children born in these months does not suffer.

State of Nutrition. — Only about one-half (49.8 per cent) of all the children examined were found to be "well nourished," which shows us best what conditions exist in the large European cities, Prague in no way being an exception. Seven and six-tenths per cent of the children examined were nourished "badly." After the 11th year the percentage of well-nourished children increases noticeably. The districts in which the poor classes of people live show a great predominance of only medium or badly nourished individuals.

The condition of the musculature corresponds closely to the general state of nutrition of the children.

Height. — The difference between the maximum and minimum height of children of the same age was found to be very considerable. The difference reached the maximum of 45.75 cm. Under these circumstances a boy of 10 years of age was found to reach only the average height of boys of 6 years of age, while another boy of 10 years attained the average height of a boy of 14. The average height of the boys compares thus with the height of Boston boys²:

Years	6	7	8	9	10	11	12	13	14
Prague boys	109.9 cm.	115.5	120.5	125.3	129.4	133.5	138.9	144.3	150.9
Boston boys	111.1 "	116.2	121.3	126.2	131.3	135.4	140.0	145.3	152.1

¹ In New York the greatest number of births occur, with considerable regularity, in August, which places the maximum number of conceptions in November. See my *Rep. on Anthropol. Work in the State Institutions for Feeble-Minded*, Syracuse (1898), p. 8.

² Bowditch, H. P. *Ann. Rep. of the State Board of Health of Massachusetts* (1877), p. 275.

The rate of growth of American and Bohemian boys does not differ materially, but the Bohemian boys remain throughout life between 1 and 2 cm. shorter. It is difficult to say how much of this smaller height is due to racial characters and how much to inferior nutrition. The Bohemian boy is also smaller than the English and Swedish boy, but surpasses in height the Belgian, Polish, Italian, and most German male children. The children of poor classes show much smaller average height than the children of well-to-do people. This has been equally observed on American children (Bowditch, Boas).

Weight. — The average increase in weight was not found to correspond exactly, or at all ages of the children, with the height. The weight of the boys was as follows:

Years	6	7	8	9	10	11	12	13	14
Prague	18.6 kg.	21.2	23.4	25.1	27.2	30.8	33.4	36.8	40.7
Boston (Bowditch)	20.5 "	22.5	24.5	26.9	29.6	31.8	34.9	38.5	42.9

The American boys are at all ages, but especially at 10 and from 12 years upward, the heavier. Up to the 7th year the weight of the Bohemian girls and boys was found almost alike; from 7 to 12 years the girls remain behind the boys in weight; from the 12th year, however, they begin to surpass the boys. This fact has been observed by other investigators. It signifies the approach of puberty, which in girls begins by augmented deposition of fat.

The Circumference of the Head measures show the following averages:

Years	5½	6	7	8	9	10	11	12	13	14
cm.	50.72	50.92	51.18	51.43	51.75	51.9	52.12	52.34	52.8	53.05

The average annual increase = 0.28 cm. The measures are slightly (0.5 to 1.0) smaller than those which I obtain in American-born children of same ages, which is in relation with the somewhat greater height and weight of these children.

Circumference of the Thorax. — This is a very uncertain measure. The average circumference of the thorax of the 6-year-old Prague male children was 58.7 cm.; the annual increase amounted, on the average, to 1.6 cm. The increase was least between 6 and 7, and again between 11 and 12 years; but, as it was the greatest between the years 7 and 8 and 12 and 13, the probability is that the average differences in age between the two series were greater than 12 months. The thoracic circumference of the 14-year-old boys reached 72.0 cm.

Color of Hair and Eyes.—These characters allow us to distinguish two types in Bohemia; namely, the blonde, which prevails in the north and in the more mixed districts, and the dark, which prevails in the south and throughout the more purely Bohemian districts. In Prague and other large cities considerable mixture of these two types occurs. According to all indications, the dark type is gradually gaining on the blonde. Among children the hair, which is often light in early age, as years advance, in many cases rapidly becomes darker. The color of the eyes is more stable. Red hair is exceptional (1.9 per cent). The dark type of children shows certain physical advantages over the light type, but the medium or mixed type surpasses both and has apparently the best chances of existence.

Influence of the Occupation or Social Position of Parents on the Physical Condition of the Children.—This subject is naturally very complex. The results of the investigation show that the physical development of the children corresponds (*a*) to that of the parents, and (*b*) to the kind and abundance of food and the degree of other hygienic conditions. The children of butchers and dealers in smoked meat are among the best developed; on the other hand, the children of shoemakers and those of railroad employees are among those that show most defects of development. The results indicate that the physical state of a child is partly due to heredity, partly to acquisition. Children of immigrants (from the country) are in a somewhat better physical condition than city-born children.

Morals and Abilities.—The best-developed children show the largest percentage of able children, and *vice versa*. This is in accord with the results obtained by Gracianov (Russia), Sack (Russia), Porter (St. Louis). The extremes of the blonde and the dark type show smaller proportions of able children than the middle type. The more able children show larger average circumferences of the skull than the less able. The most prevalent form of the head among the able Bohemian children is a moderate brachycephaly.

As to the relation of the morals and physical condition of the children, nothing definite can be said. The size of the head of moral children seems to be, on the average, slightly greater than that of immoral individuals.

Diseases of Childhood.—The author finds that children with light hair and light eyes, hence the blonde type, are more frequently attacked by various infectious diseases of childhood. Boys with dark eyes are attacked by measles and variola with a little more frequency than boys with blue eyes. The most favorable conditions are

again noticed among children of the mixed type. The city-born children show a slightly greater tendency to infectious diseases, except to scarlatina, than those born in the country.

The city-born children examined show 8.2 per cent of short-sighted individuals, those born in the country only 7.6 per cent. Defects of hearing were noticed in 5.4 per cent of the 7607 boys examined. These data cannot be considered in any way as very exceptional. Myopia is more frequent among the dark, defects of hearing among blonde, children.

Such are, briefly, the results of the study of Dr. Matiegka. The creditable work arouses the reflection, Why do not all our large American cities follow the example of Boston, Worcester, Toronto, St. Louis, where highly successful work of similar nature has been done? Our cities are certainly more able financially to support work of this nature than is Prague, or, in fact, any European city; and the investigations are at least more desirable and promising than in any European capital. The most interesting and instructive conditions of choice, mixture, survival, and, possibly, evolution, are passing under our eyes unrecorded. This is a country which presents almost all the climates, an infinity of social conditions, and a large number of racial relations, which all more or less affect the development of the American of the future. Yet most of these opportunities are neglected. This is only partly, if at all, due to a lack of the proper men to do the work. The main obstructions which the American anthropologist has to contend with in this particular line are a disinterested, or even unfavorable public sentiment and, what will no doubt appear incomprehensible to our European colleagues, a lack of funds.

ALES HRDLICKA.

Anthropological Notes. — In the April number of the *Geographical Journal* it is stated that letters from Mr. Low, dated December 30, have been received, telling of his arrival at Great Whale River, on the east coast of Hudson Bay. He had surveyed about five hundred miles of coast, half of which was entirely new. Mr. Low carried a pair of skis with him, and states that the Eskimos of Great Whale River are devoting themselves to making and learning to use skis.

In the same journal Mr. Edward Heawood gives a summary of the contents of a dozen recent books on Africa.

Dr. William Sorenson, of Copenhagen, we are told in a paragraph in *Natural Science* for April, has shown that Worsaae was the first to